

Notice of Allowability

Application No.

09/780,895

Examiner

Chirag G Shah

Applicant(s)

JI ET AL.

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/04/2004.
 2. ☒ The allowed claim(s) is/are 6, 7, 9-12, and 14; renumbered 1-7.
 3. ☒ The drawings filed on 09 February 2001 are accepted by the Examiner.
 4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____

Ajit Patel
Ajit Patel
Primary Examiner

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 11/22/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark J. Danielson on 11/22/04.

The application has been amended as follows:

In claim 14 (renumbered claim 7), line 14, before "stored", the second "that" has been removed.

In claim 14 (renumbered claim 7), line 22, after "specific", the word "that" has been changed to "than".

Examiner's Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Referring to claim 6 (renumbered claim 1), Prior Art fails to disclose the information storage portion of the at least one entry stores two sets of next hop and a prefix length information when the total number of ones in the bitmap of the at least one entry is two or more in combination with other limitations set forth in the respective claim.

Referring to claim 9 (renumbered claim 3), Prior Art fails to disclose when the total number of ones is not in the given set of values using the offset to index a bit in the bitmap of the indexed entry, determining a number of ones from the beginning of the bitmap to the indexed bit,

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using the number of ones to the indexed bit to index an entry in a second lookup table, checking a marker bit of the entry in the second lookup table, if the marker bit is zero, obtaining next hop information and prefix length information for the IP address from the remaining bits of the entry in the second lookup table, if the marker bit is one, using the remaining bits of the entry in the second lookup table to index to a block of entries in a second data structure, within the block of entries in the second data structure, using the offset to index to a particular entry in combination with other limitations set forth in the claim.

Referring to claim 14 (renumbered claim 7), Prior Art fails to disclose when the prefix length component is neither less than the first value nor greater than or equal to the second predetermined value, determining entries in the data structure matching the prefix length component, for each matching bit, determining whether the prefix length component is more specific than prefix length information associated with that bit and whether the next hop component is different from next hop information associated with that bit in combination with other limitations set forth in the respective claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 6:45 to 4:15, 2nd Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
November 22, 2004


Ajit Patel
Primary Examiner